

YO998-426DIV

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end

in the drain and source regions, is a band-gap engineering technique. For example, a $\text{Si}_x\text{Ge}_{1-x}$ source will allow a more efficient sinking of "holes" generated in the channel, thus reducing the "kink effect".

• Please replace the paragraph appearing on page 7, lines 13 - 14, of the application with the following paragraph:

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Figures 3A-3D are schematic diagrams that illustrate another embodiment of the invention;

• Please replace the paragraph appearing on page 7, lines 19 - 20, of the application with the following paragraph:

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Figures 6A-6E are schematic diagrams that illustrate another embodiment of the invention that forms a sidewall spacer;

Please replace the paragraph appearing on page 18, lines 9 - 17, of the application with the following paragraph:

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A reactive ion etch is employed, as discussed above, to form a spacer 21, as shown in Figure 6B. Figures 6C and 6D illustrate the result of an isotropic etching process (e.g., reactive ion etching or wet chemical etching) performed to remove residues 22 of the spacer dielectric 21 from the exposed silicon sidewall of the SOI channel 5. Then, as shown in Figure 6E, amorphous silicon 31 is deposited to form the source/drain regions. Alternatively, epi silicon may be re-grown from the exposed SOI channel extension 16 to fill up the drain and source regions. The remainder of the fabrication process is similar to the process discussed above with respect to Figures 2A-2BB.
